FIG.8

TIME DIMENSIONAL LAYER RULE DEFINITION DATA   3110

```
#LAYER RULE :
#AFTER CHARACTER ROW CONVERSION ON MEMBER, OBTAINING LAYER INFORMATION

FROM MEMBER NAME
LEVEL10= $ MEMBER NAME
LEVEL11={
    S/¥(.... \)0[123]/\1Q1/
    S/¥(.... \)0[456]/\1Q2/
    S/¥(.... \)0[789]/\1Q3/
    S/¥(.... \)1[012]/¥1Q4/
}
LEVEL12={
    S/\(.... \)../\1/
}
```

FIG.26

RETAIL STORE DIMENSION LAYER DEFINITION DATA

```
#MAIN LAYER RULE:
#SEQUENTIALLY APPLYING SUBRULES
APPLYING SUBRULE STORE_RULE1
APPLYING SUBRULE STORE_RULE2
```
~3140

```
#SUB LAYER RULE :STORE_RULE1
#FROM CSV FILE,OBTAINING LAYER INFORMATION
FROM FILE,CSV FILE1
LEVEL 0=COLUMN 3
LEVEL 1=COLUMN 2
LEVEL 2=COLUMN 1
```
~3141

```
#SUB LAYER RULE:STORE_RULE 2:
#AFTER CHARACTER ROW CONVERSION ON RETAIL STORE, OBTAINING LAYER INFORMATION
FROM MEMBER NAME
LEVEL 0= $ MEMBER NAME
LEVEL1={
    S/\ (.JAPAN\). $ /\ 1/.
}
LEVEL 2={
    ALL SALES TERRITORIES
}
```
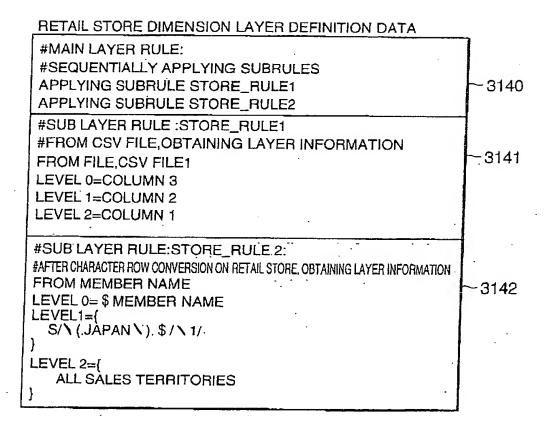~3142

FIG.27

3340

```
199901, EASTERN JAPAN  SAPPORO STORE, TVS,17, 1870000
199902, HIROSHIMA STORE, VIDEOS, 42, 2940000
199903, EASTERN JAPAN  SAPPORO STORE, REFRIGERATOR,15,1350000
```

FIG.11

RETAIL STORE DIMENSIONAL LAYER RULE DEFINITION DATA   3120

```
#LAYER RULE :
#OBTAINING LAYER INFORMATION FROM CSV FORMATTED FILE

FROM FILE,CSV FILE1
LEVEL0=COLUMN 3
LEVEL1=COLUMN 2
LEVEL2=COLUMN 1
```

FIG.12

3126

```
ALL AREAS,EASTERN JAPAN,CHIBA STORE
ALL AREAS,EASTERN JAPAN,SAITAMA STORE
ALL AREAS,EASTERN JAPAN,YOKOHAMA STORE
ALL AREAS,WESTERN JAPAN,OSAKA STORE
ALL AREAS,WESTERN JAPAN,HIROSHIMA STORE
```

FIG.15

MERCHANDISE DIMENSIONAL LAYER RULE DEFINITION DATA   3130

#LAYER RULE : RDB TABLE 'PRODUCT MASTER TABLE'
#OBTAINING FROM COL1,COL2
FROM RDB TABLE 'PRODUCT MASTER TABLE'
LEVEL 0=SMALL CLASSIFICATION
LEVEL 1=LARGE CLASSIFICATION
LEVEL 2="ALL MERCHANDISE"

FIG.16

CONTENT OF RDB PRODUCT MASTER TABLE

LARGE CLASSIFICATION	SMALL CLASSIFICATION
HOME APPLIANCE	WASHERS
HOME APPLIANCE	REFRIGERATORS
AV	TVs
AV	VIDEOS
COMPUTERS	PCs

261

FIG.17

```
      ┌─────────────────────────────┐
      │      LAYER STRUCTURE        │─── 90B
      │ INFORMATION UPDATE PROCESS  │
      └─────────────────────────────┘
                    │
                    ▼
              ╱───────────╲          9021
            ╱    LAYER      ╲
          ╱  INFORMATION GENERATED FROM ╲   YES
          ╲   RDB ACCORDING TO         ╱────────┐
            ╲   LAYER RULE?          ╱           │
              ╲───────────╱                      │
                    │ NO                         ▼              9022
                    │                    ┌──────────────────────┐
                    │                    │   CONNECTING TO RDB   │
                    │                    └──────────────────────┘
                    │                              │
                    │                              ▼          9023
                    │                    ┌──────────────────────────┐
                    │                    │ WITH THE SPECIFIED MEMBER │
                    │                    │ AND PARAMETERS IN HIERARCHY│
                    │                    │ RULE                      │
                    │                    └──────────────────────────┘
                    │                              │
                    │                              ▼          9024
                    │                    ┌──────────────────────────┐
                    │                    │ AFTER GENERATING LAYER INFORMATION │
                    │                    │ FROM THE ABOVE INQUIRY RESULTS,   │
                    │                    │ STORING AT LAYER STRUCTURE        │
                    │                    │ INFORMATION                       │
                    │                    └──────────────────────────┘
                    │                              │
                    ▼                              │
              ┌───────────┐◄─────────────────────┘
              │    END     │
              └───────────┘
```